

AIR WAR COLLEGE

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**NORTHEAST ASIA NUCLEAR DILEMMAS**

by

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## **Disclaimer**

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## Biography

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Colonel Brian A. Fox is a US Air Force officer attending the Air War College, Air University, Maxwell AFB, AL. He graduated from the University of Colorado in 1990 with a Bachelor of Science degree in Aerospace Engineering, and later earned a Master of Business Administration degree from Touro University. Colonel Fox is a career aircraft and munitions maintenance officer with experience supporting operational fighter, tanker, special mission, bomber, helicopter rescue and unmanned aerial vehicle aircraft. His munitions experience includes multiple assignments supporting Air Force, joint-service, and multi-national non-nuclear stockpiles, and field and staff duty directly supporting NATO nuclear strike units. Colonel Fox is a three-time Air Force maintenance squadron commander, and has led within his specialty at MAJCOM, Joint and Combined Task Force, and Joint and Combined staffs to include US Forces Korea and the Republic of Korea-United States Combined Forces Command (CFC).

## Abstract

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Influential political elites in South Korea and Japan have recently expressed deep concerns with the reliability of the United States to uphold its alliance security guarantee commitments. As a result, those leaders have advocated that either US nuclear weapons be deployed to the region, or that their nations establish national nuclear arsenals to better ensure regional stability and protection of vital national interests. While few analysts believe South Korea or Japan possesses the political will or operational doctrine to risk nuclear weapon development in the short term, it is likely that ally concerns will only deepen over time, due to perceived US unresponsiveness and inaction. This report analyzes the situation from the perspective of security theory (deterrence) and international relations theory (alliance dilemmas). Because both South Korea and Japan have previously undertaken controversial nuclear weapons development programs, the study reviews the security history of both of the alliances and the factors behind these actions. It also reviews processes created to address similar security assurance concerns by NATO allies during the Cold War, to facilitate case study assessment on the applicability of these processes to contemporary northeast Asia. Finally, the study provides recommendations based on the accrued data, to enhance security assurance for the South Korean and Japanese alliances.

## Introduction

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The coming decades have been termed the “Asian Century” due to anticipated growth of Chinese economic and political influence. Security analysts suggest that nuclear weapons will acutely shape the national security strategies and international relations among northeast Asia nations.<sup>1</sup> President Obama recently highlighted the crucial value which US alliances toward maintaining stability in the region.<sup>2</sup> However, allied nuclear weapons capability and conflict deterrence concerns underlie significant alliance crises of confidence tensions. Recent Japanese and South Korean activism to create national nuclear stockpiles suggests a lack of confidence in US political will and capability to support alliance commitments not seen since the early 1960s.<sup>3</sup>

Few analysts believe South Korea or Japan possesses the political will to commence nuclear weapon development in the short term.<sup>4</sup> Many, however, believe that tensions will degrade over time if US unresponsiveness and inaction is perceived. Several influential studies suggest that the Japan-US and South Korea-US alliances should implement nuclear consultation processes emplaced during the Cold War to address similar NATO nuclear tensions.<sup>5</sup> This study will assess whether NATO’s 40+ year-old remain applicable to contemporary Asian alliance nuclear tensions and security environment. After reviewing security theory (deterrence) and international relations theory (alliance dilemmas), the study will examine Asian alliance security dynamics, nuclear weapons doctrine, and past Japanese and South Korean nuclear weapons development efforts. The study will next review NATO nuclear doctrine, and clarify alliance nuclear consultation processes. The study will then clarify the contemporary northeast Asia security environment, followed by a case study assessment of the NATO nuclear consultation processes to the northeast Asia alliances. Finally, the study will offer recommendations based on the accrued data to enhance security assurance for the South Korean and Japanese alliances.

## Background

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Military deterrence seeks to prevent military attack or political coercion to vital national interests by using threats to discourage an adversary from initiating an unwanted action.<sup>6</sup>

Deterrence threats serve to convince the adversary that the costs of acting will exceed the value of possible gains, thereby influencing the adversary to choose not to act.<sup>7</sup> Deterrence threats imply that either the defender can defeat the attack and thereby prevent the adversary from successfully achieving its desired territorial or coercive objectives (deterrence by denial), or that the defender will hold the adversary's vital national interests hostage to retaliatory action so costly to dissuade adversary action (deterrence by punishment), or a combination of both.<sup>8</sup> The credibility of a nation's deterrence strategy rests upon the adversary's valuation of both potential costs of action and the defender's perceived political will and military capability to protect its vital national interests. The success of a deterrence strategy hinges upon the degree to which both the adversary and the defender perceive the defender's deterrent as credible.<sup>9</sup>

Extended deterrence is a critical diplomatic decision which offers security protection to named allies at the risk of one's own vital national interests. A defender (the US in this study) symbolizes its commitment to protect an ally from adversary aggression or coercion via an alliance security guarantee,<sup>10</sup> which is intended to provide the ally "assurance" that the US will honor its security obligations.<sup>11</sup> Assurance credibility rests upon the ally's perception of the defender's willingness and capability to uphold the alliance security commitments.

The alliance dilemmas of abandonment and entrapment strongly influence ally and defender perceptions toward security guarantee credibility and the relative value of the alliance. Allies fear abandonment if they perceive their alliance partner as unreliable vis-à-vis alliance

security commitments. Nations may also fear entrapment from an overly assertive ally whose actions may drag the alliance partner into unplanned conflicts.<sup>12</sup> Abandonment or entrapment pressures may influence an ally to take their security destiny into their own hands, whether it be acquiring more capable tools (such as a nuclear arsenal), electing to opt out of the alliance, or initiating acts to “attract the attention of and re-extract security guarantees” from the defender.<sup>13</sup>

Modern extended deterrence uses threats of conventional (non-nuclear) military response, possible nuclear retaliation, and potential diplomatic, informational, and economic action. The collection of capability provides alliance leaders with a so-called “escalation ladder” of possible retaliatory options. Alliance “declaratory policy” clarifies the conditions under which a certain kind of retaliation will be considered, or to reassure would-be aggressors the conditions under which selected retaliatory option is “off the table.”<sup>14</sup> The degree to which allied partners can shape the timing and degree of alliance retaliatory response is a continuing issue of consequence. The following chapter will review how such deterrence concepts and security dilemmas have shaped South Korea-US and Japan-US alliance dynamics and nuclear weapons development.

### **South Korea-US and Japan-US Alliance Security Dynamics**

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US nuclear weapons and nuclear security guarantees have substantially influenced the dynamics of both the Japan-US and South Korea-US alliances. The US was unwilling to limit its political and strategic flexibility with its Asian alliance partners in a region secondary to Europe in the post-WWII US “containment” strategy.<sup>15</sup> Unlike NATO’s collective-defense philosophy, the US established bilateral alliances each Asian partner which did not make Japan or South Korea responsible for each other’s defense.<sup>16</sup> Nor did the US elect to share nuclear weapons design data, targeting doctrine, or command and control details with its Asian allies.

## **South Korea**

South Korea's Cold War military was poorly equipped and incapable of independently deterring its North Korean enemy. To achieve military effectiveness and symbolize US commitment to the alliance, South Korean military forces and the responsibility for the defense of South Korea have been under the control of a US Four-star General since 1950.<sup>17</sup> To further demonstrate its commitment, the US deployed military forces and nuclear weapons to South Korea, under the control of the US Commander, until their permanent removal in 1991.<sup>18</sup> The US forces serve as a symbolic "tripwire" to assure South Korea of US engagement during a North Korean-initiated conflict, with the US nuclear weapons representing: a) a US vital national interest it will defend; and b) a battlefield capability and conflict deterrent. Unlike Europe, the US feared being entrapped into a South Korean-initiated conflict, thus has no treaty obligations under the US-South Korea Mutual Security Treaty to assist in such circumstances.<sup>19</sup>

Nuclear weapons remain a taboo topic "too shocking to consider" in South Korean society.<sup>20</sup> South Korean military and political leaders have had no exposure to US nuclear doctrine and deterrence/conflict escalation, due to strict US-only control even during the 40 years that US nuclear weapons were deployed to South Korea. Unlike NATO, where the US Secretary of Defense routinely briefed alliance peers on US nuclear policy and worldwide political initiatives, it was not until 1969 that recurring Security Consultative Meetings (SCM) between the US Secretary of Defense and South Korean Defense Minister were created to establish unified guidance for alliance forces.<sup>21</sup> Such SCM dialogue was non-nuclear and focused solely on the Korean peninsula. Given such limited political consultation, it is perhaps not surprising that a series of unilateral US efforts to decreased deployed US military troop strength in the 1970s would spike South Korea's fear of US abandonment, triggering South Korea's clandestine

nuclear weapons development program. South Korean concerns were triggered by President Nixon's unilateral removal of a US combat infantry division from the peninsula, only years after President Johnson had assured South Korean leaders that no such drawdown would occur.<sup>22</sup> Such fears were compounded by President Carter's drive to remove all remaining US forces from the peninsula, lackluster US response to North Korean aggressions, and perceived abandonment of other regional US allies (Taiwan and Vietnam).<sup>23</sup>

## **Japan**

Japan's differing strategic circumstances resulted in a distinctly different alliance. The US valued Japan as the consequential ally in the northeast Asia region--a future regional power whose future economic and political influence the US hoped would shape US interests elsewhere in the region.<sup>24</sup> Japan's proximity to regional adversaries and other US allies made it a valuable power projection platform for US aviation and maritime forces. Unlike NATO or South Korea, Japan was not faced with a viable invasion threat.<sup>25</sup> Additionally, Japan's WWII aggression and savage occupation tactics made its potential re-armament threatening both to regional adversaries and other US allies. Japan, seeking relief from US occupation in the early 1950s, pragmatically emplaced a pacifist "Peace Constitution" and established a security treaty with the US which provided guaranteed basing rights to the US in exchange for US defense of the Japanese homeland. The treaty thus provided collective value to the region, lessening fears of entrapment (potential conflicts involving a resurgent Japanese military) and providing reassurance to the pacifist Japanese public and its neighbors alike.<sup>26</sup>

Japanese nuclear doctrine was defined by two Cold War policies which remain in-force. Prime Minister Sato's 1967 "Three Non-Nuclear Principles" prohibits Japan from manufacturing or possessing nuclear weapons, and outlaws the entry of any nation's nuclear weapons within

Japanese soil, maritime territory, or airspace. This reflected both a fear of entrapment (deployment of US nuclear weapons within Japanese territory threatened external attack), and the temperament of a vehemently anti-nuclear Japanese populace.<sup>27</sup> Sato's subsequent 1968 "Four Nuclear Policies" held Japan to: a) adherence to the Three Non-Nuclear Principles; b) pursuit of global disarmament; c) limiting Japanese use of nuclear energy to peaceful purposes; and d) reliance upon US extended deterrence to maintain Japanese external security.<sup>28</sup> Both Japanese policies were enacted at a time of significant internal and external security tensions, while Japan was considering how to respond to the 1964 Chinese nuclear test, how reliable US security guarantees were, and whether or not to sign the Nuclear Nonproliferation Treaty.<sup>29</sup>

Prime Minister Sato also commissioned Japan's initial assessment on development of a national nuclear arsenal. Where South Korea's proliferation activity involved engineering activity, Japan has limited its efforts to high-level academic and political cost/benefit analyses. All studies have concluded that continued reliance upon US extended deterrence security protection was of greater political and strategic value to Japan than creation of a nuclear arsenal:

**Table 1 – Japanese Nuclearization Studies and Results<sup>30</sup>**

Date	Research Agency	Assessment Focus	Conclusions
1960s	Natl Security Research Agency	Scientific and Technical Capabilities	Maintain status quo (extended deterrence) due to economic costs and negative regional political impact (threat of "resurgent Japan")
1960s	Cabinet Office (academia)	Political Considerations	Maintain status quo (extended deterrence) due to negative political costs
1960s	Ministry of Foreign Affairs	Foreign Policy Impacts	Maintain status quo (extended deterrence) but establish latent technical and economic capability to produce an indigenous weapon
1990s	Japanese Defense Agency	Strategic Considerations	Maintain status quo (extended deterrence) due to lack of threat justifying national arsenal
2003	45 Japanese Strategic Elites	Strategic Considerations	Maintain status quo (extended deterrence) but enhance latent technical capability to more quickly produce an indigenous weapon

These studies highlight the political relevancy for Japan to maintain a “latent” (possible) nuclearization capability. So doing exemplifies Ariel Levite’s premise of “nuclear hedging,” which he defines as “a national strategy of maintaining, or at least appearing to maintain, a viable option for the relatively rapid acquisition of nuclear weapons, based on an indigenous technical capacity to produce them within a relatively short time frame ranging from several weeks to a few years.”<sup>31</sup> Analysts suggest Japan’s hedging strategy serves both to compel US security assurance commitment due to fear of entrapment in a Japanese conflict, and serve as an unambiguous signal to adversaries not to push Tokyo to a point of operationalizing its latent nuclear capability.<sup>32</sup> Andrew O’Niel draws a parallel here with Israel’s strategic hedging activity, where the latter’s un-acknowledged nuclear weapons capability has provided unquestioned strategic deterrence to any who would threaten Israel’s continued existence.<sup>33</sup>

A key factor impacting the credibility of such a hedging strategy is the existence and capability of a warhead delivery platform. This issue was assessed in detail in Japan’s 2003 nuclearization assessment.<sup>34</sup> That study concluded that it would take decades for Japan to develop credible nuclear capability due to lack of viable delivery vehicles, insufficient command and control systems, and nonexistent operational doctrine, as well as an immature national security policy.<sup>35</sup> Such factors reinforce the consistent recommendations from each of the nuclearization studies that Japan should not engage in establishing nuclear capability unless it is with the assistance and support of the US, thereby retaining a key ally which can maintain alliance security in the interim and could provide assistance to accelerate Japanese efforts. Given this history, we will now quickly review northeast Asia’s current security environment, including contemporary Japanese and South Korean issues and the perspectives of other regional states toward potential creation of indigenous nuclear capability or US nuclear redeployment.

## Contemporary Northeast Asia Security Environment

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### North Korea

North Korea would consider any action which positioned alliance nuclear weapons near its territory as a compelling threat—and proof that the US remains bent on invasion and regime change. Terence Roehrig contends that North Korea has demonstrated a mature grasp of modern deterrence theory, by establishing nuclear capability to deter by denial its greatest threat.<sup>36</sup> Andrew O’Niel’s assessment of North Korean declaratory policy and leadership statements suggests it has shrewdly identified itself as a responsible nuclear weapons state, which has yet to threaten offensive use of its arsenal.<sup>37</sup> North Korea has executed substantial small scale aggression for decades, including when US nuclear weapons were deployed to South Korea; it is doubtful that indigenous arsenals or US weapon deployment would deter North Korean action.<sup>38</sup>

### China

While China values US extended deterrence for enabling regional stability and economic activity, it would strongly oppose introduction of nuclear weapons into the region. China already opposes Japan’s Ballistic Missile Defense system, which Japan posits is focused at North Korea, as an escalatory threat aimed at containing Chinese freedom of action.<sup>39</sup> Surprisingly, some analysts suggest that Japanese proliferation itself would not necessarily be de-stabilizing. Such views hold that the considerable economic linkages between the two countries and likelihood that both nations would maintain only a minimal deterrence force, would lead to mutual deterrence.<sup>40</sup> Rather, analysts suggest that China fears that Japanese proliferation would beget Taiwan to renew its long-aborted nuclear weapons development program, thereby complicating China’s national priority to reunify Taiwan.<sup>41</sup>

## **Russia**

Russia retains limited influence in the region since termination of its Cold War sponsorship of North Korea. However, Russia maintains particular sensitivity for regional stability to enable development of its untapped Russia Far East (RFE) oil reserves and anticipated revenue from the recently-opened northwest passage (year-round sealift across the Arctic), proximate to Vladivostok and the RFE reserves. These reserves are also proximate to disputed territory claimed by Japan. Based upon Russian reaction to proposals to establish NATO ballistic missile defense (BMD) systems near its borders in Europe, Russia would find alliance nuclear weapons a threat, and threaten revocation of the INF Treaty.<sup>42</sup>

## **Taiwan**

Taiwan remains relevant to discussion of regional deterrence and nuclear proliferation. Many analysts posit Japanese proliferation would beget similar proliferant efforts in Taiwan, to create a minimum nuclear deterrent in opposition to the threat of Chinese invasion or coercive reunification. Most analysts perceive a US-China crisis, in response to Taiwan-China tension, as both the most likely and most dangerous potential US conflict in the northeast Asia region.

## **South Korea**

Nuclear weapons remain delicate issue for the South Korean public. A younger South Korean public bereft of Korean War experiences has come to regard the North Korean populace as poor relatives requiring compassion and assistance, led by insensitive demagogues. Korean unification is no longer a stated South Korean national priority.<sup>43</sup> Instead, the focus is to avoid war on the Korean peninsula, to prevent economic devastation and unspeakable suffering to all Korean people.<sup>44</sup> North Korea is no longer perceived “the enemy,” but remains a “direct military

threat.” China is an economic partner—not a threat. Many South Koreans view the potential societal disruption from North Korean regime instability as more of a threat than North Korea’s nuclear capability.<sup>45</sup> Inter-Korean engagement policies no longer conflict with US coercive efforts to roll-back North Korea’s nuclear and missile programs, and now generally support ongoing Six-Party denuclearization talks.<sup>46</sup> North Korea’s unceasing and provocative small-scale aggressions (e.g. Ch’onan ship attack and Yeonpyeoung Island shelling), the South Korean government’s bumbling response to these incidents, and the long-term failure of ongoing Six-Party talks to effect North Korean denuclearization have combined to frustrate South Korean elites and the population and contribute to South Korea’s proliferation rhetoric.<sup>47</sup> Analysts posit the goal of this nuclearization rhetoric is to coerce successful US and Chinese efforts to achieve North Korean denuclearization and halt further small-scale aggressions.<sup>48</sup>

## **Japan**

While political discourse about nuclear weapons is no longer political suicide, the Japanese public remains adverse to nuclear weapons and their use, and the government remains unwilling to change to nuclear doctrinal norms and prohibitions. This results not from significant direct experience with the Hiroshima/Nagasaki attacks, but national prestige from social and environmental advocacy which has made Japan a world leader in nonproliferation and denuclearization. Japan’s scientific community is perceived as unwilling to assist in efforts resulting in military nuclear capability. Japan’s military gained ministerial status in 2010, following decades where all off-island defense issues were managed by non-military representatives intentionally selected from the Ministry of Foreign Affairs. Despite considerable advocacy in recent years, Japan still lacks a National Security Agency institution to prioritize and focus the nation’s security issues for ministerial action.

The Japanese government was long reluctant, if not willfully negligent, to be involved in US nuclear strategy as it pertains to the defense of Japan. “It has therefore been an epoch-making development that the Japanese and US governments have, since 2009, begun to explore ways to commence consultations on extended deterrence.”<sup>49</sup> Japan is frustrated with continuing North Korean aggression and the long-term lack of Six-Party talks denuclearization progress. Japan’s long term strategic concern is adversary nuclear coercion from China (or a resurgent Russia) which a weakened US will be unwilling to oppose. Overall, Japan desires neither to lose the US as an ally, nor to establish indigenous nuclear capability without strong US support. Given such weighty assurance and deterrence dilemmas, how should Japan proceed? The answer may lie with NATO Cold War alliance security assurance processes.

### **NATO Strategic Assurance Processes**

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NATO differed substantially from the Asian alliances, yet has weathered similar alliance abandonment and entrapment dilemmas. Unlike the Asian alliances, NATO was founded as a collective security pact, in which all member states committed to respond if any member nation was attacked.<sup>50</sup> NATO doctrine requires consensus decision-making, where alliance partners were relative equals and collaborative dialogue and information sharing was expected between alliance partners. As noted above while describing the US-South Korea SCM process, NATO nuclear and security processes were more inclusive and collaborative than their contemporary Asian equivalents. However, enhanced collaboration did not shield Cold War NATO from significant alliance nuclear dilemmas. Permanently deploying US forces to Europe, backed by promises of atomic-armed bombers, only temporarily assuaged allied concerns.<sup>51</sup> As Soviet capabilities (threat) grew, allied doubts increased, leading the US to deploy nuclear weapons to Europe under the control of US forces. This appeased some allies, while leading other partners

to fear unilateral US weapons use and increased their efforts to influence or de-facto control the possible use of US nuclear weapons in the theater. Alliance nuclear doctrine transitioned from unilateral US-only control to a process where the US assisted certain allies to create national nuclear arsenals, and allowed others to field weapons systems capable of delivering US warheads.<sup>52</sup> Table 2 summarizes NATO nuclear dilemmas during the early Cold War:

**Table 2 – Early Cold War NATO Security Assurance Credibility Dilemmas<sup>53</sup>**

<b>Agent</b>	<b>Dilemma Feared</b>	<b>Issue</b>	<b>Action</b>	<b>Assurance Impact</b>
US	Abandonment	European allies unwilling to field massive army to counter the Soviet threat	US nuclear security guarantee to offset the Soviet threat	Successful
NATO	Abandonment	Allies fear US will be unwilling to risk US homeland to maturing Soviet nuclear threat	US deployed nuclear weapons to Europe	Successful
Britain and France	Abandonment	US is unwilling to protect ally vital interests (France: Dien Bien Phu, Britain: Suez Crisis)	US provided technical assistance to enable creation of French and British national nuclear arsenals	Successful-- France and Britain control use of their respective arsenals
West Germany	Entrapment	Possible destruction to German homeland due to unilateral US nuclear response	US established a pre-launch collaborative process	Successful
Multiple	Abandonment	Assign US Nuclear Weapons to non-nuclear NATO powers	Procedures established via bilateral agreement to transfer US warhead to ally delivery vehicle	Successful-- established "burden sharing" or "dual-key" ally nuclear capability

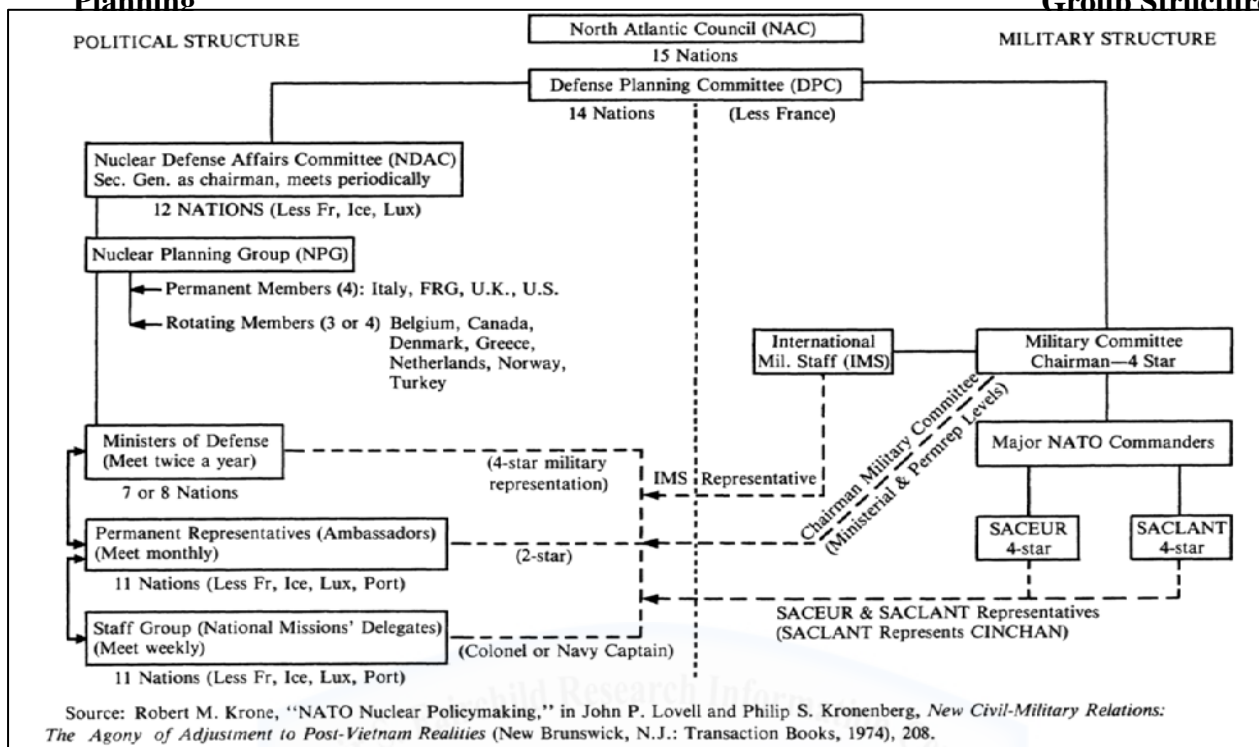
NATO's nuclear dilemmas were complicated by inconsistent ally concerns and political agendas—"alliance solutions" must address competing demands from different partners. The US was motivated to search for ways to provide its NATO allies a role in nuclear matters without actually turning over control of the weapons (warhead) or encouraging additional nations to develop national nuclear capabilities.<sup>54</sup> David Schwartz suggests that the US adopted five major

doctrinal changes during the 1957-1967 timeframe to address NATO ally concerns, via a “trial and error” process culminating in creation of the NATO nuclear planning group (NPG).<sup>55</sup> Initial efforts were focused on either placing US warheads into ally-owned delivery vehicles (“nuclear burden-sharing”), or otherwise focusing on providing more weapons to the alliance. These weapons-focused doctrinal efforts were unable to satisfy the fundamental problems of control and policy formulation. Schwartz makes two key conclusions relevant to this study: 1) An alliance’s efforts to seek a solution creates considerable pressure to succeed, and 2) Efforts which stimulate consultative discussions are more likely to lead to long-term alliance success than those focused on providing an ally with (indigenous or US-provided nuclear warhead).<sup>56</sup>

NATO’s NPG is a complex institutional anachronism. Succinctly, the NPG is a permanent consultative body comprised of all interest NATO nations, representing both the alliance’s military and civilian (political) “sides”, and chaired by NATO’s senior member (the NATO Secretary General). The NPG is a planning and policy entity not involved in crisis management. Any NPG member nation may introduce a topic for NPG consideration. NPG participants discuss such issues in a non-attribution format to clarify their personal understandings and ascertain unprompted reactions from their allied peers. Ideas are discussed in an informal, unstructured, and non-threatening manner, where views are considered both unofficial and not attributable to respective national leadership. Following such dialogue, a draft policy staffing package is created and staffed through succeeding levels of authority, “...with additions, deletions, or changes subject to the principle of unanimity.” Such consultation occurs without a defined timeline. When ready, draft policy can be introduced as a topic for monthly Ambassador-level meetings, or at one of the twice-yearly meetings of the NATO Secretary General and defense ministers.<sup>57</sup> Figure 1 depicts NATO’s Cold War NPG:

**Figure 1 –  
Planning**

**NATO Nuclear  
Group Structure**



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vehicle, and various planning, exercise, and support processes long-utilized in NATO to ensure

that all member nations demonstrably support the vital nuclear deterrence mission. Table 3

summarizes NATO's various nuclear collaboration and nuclear sharing initiatives, which will be

referenced in subsequent case study analysis.<sup>58</sup>

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**Table 3 – NATO Consultation and Nuclear Planning Security Assurance Initiatives<sup>59</sup>**

<b>Nuclear Assurance Process</b>	<b>Description</b>	<b>NATO Example</b>	<b>Additional Details</b>
Nuclear Information Sharing	Enables ally access to classified US nuclear technical information. Per US Atomic Energy Act, allies must establish a specific bilateral treaty with the US to enable information transfer	NATO "ATOMAL" security clearance/access for sensitive nuclear technical information	Bilateral treaties with US were required to enable US support for British and French nuclear weapons programs and establishment of NATO dual-key operational delivery capability
Nuclear Burden-Sharing	IAW associated bilateral treaty, enables wartime transfer of US-controlled nuclear weapon onto an ally-owned delivery vehicle	NATO "Dual-Key" operational delivery capability	Also required to enable allied construction and upkeep of facilities on allied soil to store and maintain deployed US weapons
Nuclear Consultation	High-level political & military policy consultation	Nuclear Planning Group (NPG)	Collaboration via high-level dialogue between interested alliance nations
Nuclear Control & Evaluation	Enables peacetime training and evaluation and common wartime execution doctrine of the alliance nuclear mission	Alliance Operational Plans	
	Alliance nuclear evaluation and exercise processes	NATO TAC-Eval Nuclear Strike Exercise; NATO Command Post Exercises; NATO Nuclear Surety Inspections and Joint Safety and Security Inspections	
	Alliance C3 System	Alliance nuclear command, control, and communication system	Civilian control of alliance nuclear operations
Conventional Support	Doctrinal integration of alliance non-nuclear forces to support alliance nuclear operations	Support of Nuclear Operations with Conventional Air Tactics (SNOWCAT)	Air Refueling, Combat Search and Rescue

## **Case Studies—South Korean and Japanese Strategic Assurance Options**

### **South Korea**

South Korean confidence in US extended deterrence and security guarantees hinges on perception of US political resolve: “South Korea seems to have little concern about the technical characteristics or operational plans associated with US nuclear forces” protecting the region.<sup>60</sup>

South Korean leaders are frustrated by North Korea’s continued small-scale aggressions, and

concerned that failure of ongoing Six-Party talks to denuclearize North Korea may lead Tokyo to proliferate, raising the possibility of regional conflict.<sup>61</sup> “The evidence is unambiguous that the South Koreans want clear, authoritative, and repeated statements of the US nuclear guarantee.”<sup>62</sup>

While lacking the requirement to develop or position nuclear weapons within South Korea, the alliance would still benefit from several processes suggested by NATO experiences:

Nuclear Information Sharing: Per the US Atomic Energy Act, US nuclear technical information cannot be transferred until an ally establishes a specific bilateral treaty. Without this, technicians and consultants have no security clearance access to nuclear technical information. Until South Korea requests (and US approves) a bilateral agreement to enable such nuclear information sharing, and establishes an associated security access/control system to protect this information, no capabilities-based bilateral nuclear dialogue can occur.<sup>63</sup>

Nuclear Consultation: The alliance created an “Extended Deterrence Policy Committee (EDPC)” in late 2010, thereby creating a policy-level consultative institution focused on alliance deterrence issues, akin to the NATO NPG. EDPC’s existence reinforces how much the US values its South Korean partner, enables the “constant statements of reassurance” function valued by South Korean leaders, and reinforces Schwartz’s NATO nuclear dilemma lessons learned. Research confirms positive political/elite and press commentary on EDPC establishment, and evidence of substantive multilateral efforts directly supporting South Korean security concerns.<sup>64</sup> This forum can be further utilized to establish an alliance conflict escalation ladder, define exactly how crisis consultation would be executed between the allies, and clarify each nation’s force procurement priorities. The EDPC could be further leveraged for alliance nuclear planning (operational plans, scenario-based exercises, and evaluations) and doctrine.

Conventional Support: This protocol enables detailed alliance planning and resource prioritization for necessary non-nuclear military activity required to enable a nuclear deterrence-related activity. For example, training and exercise evaluation of alliance disaster/emergency response personnel, and South Korean maritime defense or air suppression/air defense activity required to either directly support nuclear activity or deception operations.

## **Japan**

All of the NATO nuclear assurance processes are applicable to Japan's strategic situation:

Nuclear Information Sharing: As above, until Japan requests and the US approves a bilateral agreement enabling use of nuclear information for security purposes, no substantive dialogue about US nuclear capabilities and constraints can take place. Nuclear information sharing is also the collaborative tool directly impacting Japan's hedging capability and efficacy. Avery Goldstein reinforces that the US-France and US-Britain bilateral agreements were the foundational tools which provided the technical details necessary for those allies to create their national nuclear arsenals.<sup>65</sup> Nuclear information sharing would provide the most effective means to increase the Japanese hedge, by providing relevant technical information which could be leveraged to reduce the time that required for Japan to produce a viable nuclear weapon system.<sup>66</sup> Similarly, the same bilateral agreement would be required to facilitate any kind of nuclear burden-sharing effort which the alliance may choose to undertake, from foundational emergency/accident management dialogue to potential dual-key deployment of US nuclear weapons onto Japanese territory.<sup>67</sup>

Nuclear Burden-Sharing: Multiple options exist—once the information sharing agreement enables such dialogue. Dual-key alliance multilateral capability may augment

alliance hedging, while retaining US operational and conflict escalation control. While Japan does not currently possess an aircraft certified to interface with US nuclear bombs, it recently committed to purchase the US F-35 aircraft. This is the same type the US and selected NATO allies intend to use for NATO nuclear burden-sharing. Japan could also elect to seek nuclear certification for its indigenous F-2 fighter, which is based on the F-16 aircraft approved for US and Italian NATO nuclear operations. Germany and Italy followed this process to nuclear-certify their Tornado fighter aircraft. While the operational effectiveness of a nuclear-armed fighter is questionable due to robust enemy air defense systems, there is no denying the political signaling effect from the simple act of preparing and loading an aircraft which may not ever launch.

Nuclear Consultation: Analysts overwhelmingly recommend creation of a NPG-like bilateral consultative forum. Although both US and Japanese defense ministers advocated establishment of a bilateral deterrence group (hereafter, BDG) in their 2011 SCC meeting, unclassified research does not confirm that such an agency has actually stood-up or conducted business.<sup>68</sup> Establishment and utilization of a viable BDG is required to effect success in all the other nuclear assurance initiatives. James Schoff has provided invaluable guidance toward BDG establishment, by identifying a viable Japanese political-military Security Sub-Committee (SSC) of proper authority to undertake required consultative dialogue.<sup>69</sup>

Nuclear Control & Evaluation: Even if no additional measures are taken to enhance alliance deterrence, care should be taken to learn from NATO nuclear planning protocols. At minimum, procedures need to be defined as to when and how Japan's capable Ballistic Missile Defense (BMD) system would be utilized in a conflict—and when it would not. Japan is scheduled to move its BMD control processes to Yokota Air Base, to establish a bilateral air defense control center. Research does not indicate that scenario-based exercises have been

planned for the deterrence by denial system, nor whether the system facility will be evaluated through some form of recurring operational evaluation, or what the mechanism will be to document and act upon lessons learned. Properly refined, the BMD control center would make a logical nuclear operations control system for deterrence by punishment capability. Such exercises would also serve to season Japan's military-inexperienced political leadership, and reinforce collective confidence in the capabilities of the alliance members.<sup>70</sup>

Conventional Support: This is a pertinent topic given Japan's existing exclusive defense-oriented policy (EDOP), which that nation currently interprets as prohibiting Japan from coming to the aid of allied forces even if the latter were being fired upon. It may be advantageous to develop criteria enabling selected nuclear support operations during times of war. Another option for consideration is integration of maritime forces in support of deterrence operations, including BMD and potential (burden-sharing) expedient retrofit of alliance submarines and surface craft to allow launch of conventional or nuclear cruise missiles.<sup>71</sup>

## **Conclusion**

NATO's Cold War alliance nuclear assurance processes are viable and directly address key alliance nuclear deterrence and security issues in contemporary South Korea and Japan. While recent security assessments have focused upon Japan and NATO's Nuclear Planning Group consultative processes, case study assessment confirms that selected NATO processes are directly applicable to South Korea, and that the NPG is not the only valuable assurance process.

Whereas the US has made a good start in leveraging the EDPC for nuclear consultative dialogue, South Korea must seriously consider establishing a bilateral treaty with the US to enable transfer of nuclear technical information. Only so doing would enable enhanced alliance

collaboration on issues ranging from weapons effects, operational constraints, conflict escalation doctrine, and realistic operational exercises or evaluations. The US should leverage the EDPC immediately to assess South Korea's new 2010 Proactive Deterrence policy, which promises disproportionate South Korean retaliator response to anticipated North Korean aggression, thus threatening an escalatory spiral with North Korea.<sup>72</sup>

NATO strategic assurance processes also appear viable to addressing Japanese security assurance concerns. It remains unclear whether Japan will relax its current internal prohibition on offensive military force, thereby enabling crucial aviation or maritime support operations. However, Japan would remain within its doctrine and enhance its nuclear hedging capability if it pursued a bilateral security information sharing agreement with the US. So doing would establish capability to hold consultative dialogue at the classified and technical capabilities level to address warhead production and stockpile upkeep, delivery vehicle interface, command and control procedures. Collective understanding would thereby enable crucial operational discussion of existing Japanese capabilities, such as de-conflicting Japanese Ballistic Missile Defense deterrence by denial defense operations from other alliance activity, and integrating Japanese fire and medical forces to support emergency response operations. Given the relative immaturity of Japanese national security planning and integration of Japanese Self Defense Force capability into Japanese national political planning, it appears crucial to move the bilateral deterrence group from concept to reality and achieve alliance security goals.<sup>73</sup>

As proven in NATO, US willingness to actively engage its allies motivates both parties to successful ends. Given the stakes in contemporary Northeast Asia, the time has come to act.

## Notes

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<sup>1</sup> Muthiah Alagappa, "Introduction." In *The Long Shadow: Nuclear Weapons and Stability in 21<sup>st</sup> Century Asia*, edited by Muthiah Alagappa (Stanford, CA: Stanford University Press, 2008), 23.

<sup>2</sup> *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense* (Washington, DC: United States Department of Defense, 6 January 2012)

<sup>3</sup> David N. Schwartz, *NATO's Nuclear Dilemmas* (Washington, DC: The Brookings Institution, 1983).

<sup>4</sup> Recent comprehensive topical reviews include James L. Schoff, *Realigning Priorities: The US-Japan Alliance and the Future of Extended Deterrence* (Cambridge, MA: Institute for Foreign Policy Analysis, March 2009); Richard C. Bush, *The US Policy of Extended Deterrence in East Asia: History, Current Views and Implications* (Washington, DC: Brookings Institution, February 2011); and Tim Sullivan, *Deter and Assure: Charting the Course for America's Asian Alliances in the New Nuclear Age* (Washington, DC: American Enterprise Institute, November 2010).

<sup>5</sup> Contemporary analysts have increasingly recommended adoption of some kind of bilateral nuclear forum akin to the NATO Nuclear Planning Group (NPG) to address Japanese concerns with US extended deterrence credibility. In most cases, the bilateral forum is mentioned in passing, with no explanation of the NATO process or assessment of how to modify NATO processes to the Japan-US alliance. See Keith Payne, *US Extended Deterrence and Assurance for Allies in Northeast Asia*, (Washington, DC: National Institute Press, 2010). The significant exception to this rule is James L. Schoff's comprehensive 2009 assessment, in which several pages are dedicated to overviewing the NATO NPG process and providing specific shortfalls and recommendations to implement similar processes for Japan.

<sup>6</sup> David S. Yost, "US Extended Deterrence in NATO and North-East Asia," In *Perspectives of Extended Deterrence*, Research Document 3, (Paris, FR: Fondation pour la Recherche Stratigique, 2011), 15.

<sup>7</sup> Paul K. Huth, *Extended Deterrence and the Prevention of War*, (New Haven, CT: Yale University Press, 1988) 15.

<sup>8</sup> Patrick Kronin and Audrey Kurth, *Challenging Deterrence: Strategic Stability in the 21<sup>st</sup> Century*, (Oxford, UK: International Institute of Strategic Studies, February 2007), 5. See also T.V. Paul, *Complex Deterrence: Strategy in the Global Age*. (Chicago, IL: University of Chicago Press, 2009), 88-89.

<sup>9</sup> The political nature of extended deterrence is summarized by strategist Thomas Schelling: "To project the shadow of one's military force over other countries is an act of diplomacy. To fight abroad is a military act, but to persuade enemies that one would fight abroad, under circumstances of great cost and risk, requires more than a military capability. It requires projecting intentions. It requires having those intentions, even deliberately acquiring them, and communicating them persuasively to make other countries behave." Thomas Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 1966), 36.

<sup>10</sup> Huth, 424.

<sup>11</sup> *Quadrennial Defense Review Report*. (Washington, DC: US Department of Defense, 30 Sept 2001), 11.

<sup>12</sup> See Glenn H. Snyder, "The Security Dilemma in Alliance Politics," *World Politics* 36, No 4 (July 1984), 461-495, or Snyder's *Alliance Politics*. (Ithica, NY: Cornell University Press, 1997), 181. Additional narrative specific to post-WWII Asia alliance dilemmas is detailed by Michael Mandelbaum, *The Nuclear Revolution: International Politics Before and After Hiroshima*. (New York, Cambridge University Press, 1981), 151.

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<sup>13</sup> See Christopher W. Hughes, "North Korea's Nuclear Weapons: Implications for the Nuclear Ambitions of Japan, North Korea, and Taiwan," *Asia Policy*, No 3 (January 2007), 78.

<sup>14</sup> Jeffrey Lewis and Peter Hayes provide a cogent overview of recent changes to US nuclear declaratory policy intended to reinforce the effectiveness of the US deterrence efforts focused on North Korea, and supporting the alliance preferences of Japan. See *The DPRK and the Warsaw Clause: An Unannounced Change in US Nuclear Policy* (San Francisco, CA: Nautilus Peace and Security Network, July 28, 2011). [http://www.nautilus.org/publications/essays/napsnet/forum/DPRK\\_Warsaw\\_Clause\\_Lewis\\_Hayes](http://www.nautilus.org/publications/essays/napsnet/forum/DPRK_Warsaw_Clause_Lewis_Hayes), (accessed 1 September 2011).

<sup>15</sup> Michael Finnegan, *Benchmarking America's Military Alliances: NATO, Japan, and the Republic of Korea*. (Seoul, ROK: Center for US-Korea Policy, February 2009), 6. See also Robert M. Krone, "A Pacific Nuclear Information Group: Prospects and Guidelines," *The Journal of East Asian Affairs* Vol III, No 2 (Fall/Winter 1983), 428.

<sup>16</sup> G. John Ikenberry and Takahashi Inonguchi, *The Uses of Institutions: The US, Japan, and Governance in East Asia* (New York, NY: Palgrave Macmillan, 2007), 9.

<sup>17</sup> South Korean forces were initially subordinated to the United Nations Command (UNC), which was superceded by the Combined Forces Command (CFC) in 1978. While CFC is also led by a US 4-star General, South Korean forces have gained increasing autonomy in deference to their increased capability and ROK's success as a stable democratic regional power. South Korean military commanders now exercise control over their own forces during armistice ("peacetime"), and the South Korean national command authority must approve wartime transfer of South Korean forces to the Commander CFC to respond to North Korean aggression. CFC is scheduled to be deactivated in 2015, placing a South Korean 4-star commander in control of South Korean and assigned US forces. See Michael Finnegan, *Benchmarking America's Military Alliances: NATO, Japan, and the Republic of Korea*. (Seoul, ROK: Center for US-Korea Policy, February 2009).

<sup>18</sup> Payne, 12-14.

<sup>19</sup> Ikenberry and Inonguchi, 142.

<sup>20</sup> Payne, 8.

<sup>21</sup> For more on NATO ministerial meetings see Krone, "A Pacific Nuclear Information Group," 428, and Lord Ismay, *NATO: The First Five Years, 1949-1954*, (Mons, BE: North Atlantic Treaty Organization), 17-23. For more on South Korean-US MCM, see Finnegan, 16. A subsequent Military Consultative Meeting (MCM) recurring annual meeting between South Korean and US Chairmen of the Joint Chiefs of Staff was established to consult upon SCM strategic guidance and advise respective national command authorities.

<sup>22</sup> Payne, 10.

<sup>23</sup> Ibid, 10.

<sup>24</sup> Ikenberry and Inonguchi, 142. See also Matthew Jones, *After Hiroshima: The United States, Race, and Nuclear Weapons in Asia, 1945-1965*, (Cambridge, UK: Cambridge University Press, 2010), 47.

<sup>25</sup> Neither the Soviets nor the Chinese possessed credible capability to invade Japan, thus the primary perceived Cold War threat to Japan was internal subversion by national communist or socialist political parties. See Ikenberry and Inonguchi, 33. Additional relevant detail is provided by Matthew Jones, *After Hiroshima: The United States, Race, and Nuclear Weapons in Asia, 1945-1965*, (Cambridge, UK: Cambridge University Press, 2010).

<sup>26</sup> Ikenberry and Inonguchi, 82. See also Katsuhisa Furukawa, "Japan's Policy and Views on Nuclear Weapon: A Historical Perspective" in *Jebat: Malaysian Journal of History, Politics, and Strategic Studies*, Vol 37, 2010, 1-30.

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<sup>27</sup> See “Japanese Public Opposition to Nuclear Weapons” in Gregory Kulacki, *Japan and America’s Nuclear Posture* (Cambridge, MA: Union of Concerned Scientists, March 2010), 5-7.

<sup>28</sup> Furukawa, 2.

<sup>29</sup> Yuri Kase, “The Costs and Benefits of Japan’s Nuclearization: An Insight into the 1968/70 Internal Report,” *The Nonproliferation Review*, Summer 2001, 55-68.

<sup>30</sup> Data derived from Katsuhisa Furukawa, “Japan’s Policy and Views on Nuclear Weapon: A Historical Perspective,” *Jebat: Malaysian Journal of History, Politics, and Strategic Studies*, Vol 37, 2010, 1-30.

<sup>31</sup> Ariel E. Levite, “Never Say Never Again: Nuclear Reversal Revisited,” *International Security* Vol 27, No 3 (Winter 2002/03), 59-88.

<sup>32</sup> Andrew O’Niel, *Nuclear Proliferation in Northeast Asia: The Quest for Security*, (New York, NY: Palgrave Macmillan, 2007), 71-73.

<sup>33</sup> Ibid, 94.

<sup>34</sup> Furukawa, 16.

<sup>35</sup> Ibid, 16.

<sup>36</sup> See Terence Roehrig, “Restraining the Hegemon: North Korea, the US and Asymmetrical Deterrence,” in *The United States and the Korean Peninsula in the 21<sup>st</sup> Century* (Burlington, VT: Ashgate Publishing Company, 2006), 163-184.

<sup>37</sup> O’Niel, 71-73.

<sup>38</sup> North Korea’s Cold War provocations included assassination attempts on the South Korean President, a terrorist bombing of a Korean Air Flight, and commando attacks on the South Korean Presidential House. See Seongho Sheen, “To Be or Not to Be: South Korea’s East Asia Security Strategy and the Unification Quandary,” *The International Spectator*, Vol 44 No 2, June 2009, 41-58.

<sup>39</sup> O’Niel, 70.

<sup>40</sup> O’Niel, 79-102.

<sup>41</sup> See Reshmi Kazi, “Japan’s Nuclear Policy at Crossroads,” *Strategic Analysis*, Vol 34, No 3, 2010, 436-450.

<sup>42</sup> The INF Treaty was a consequential nuclear arms control concession negotiated in the 1980s to resolve a NATO deterrence dilemma. Succinctly, The USSR developed and fielded a new long-range nuclear missile which NATO was initially unable to reach with European-based weapons. NATO’s Nuclear Planning Group successfully recommended that the US deploy new, longer-range US missiles to Europe, capable of threatening the Soviet missiles and also Soviet homeland. The USSR responded to this deployment by agreeing to negotiate an Arms Control agreement to prohibit missiles capable of achieving the range in question. This included destroying missiles which were capable of reaching Japanese soil from the Soviet homeland. Recently, Russian rhetoric has threatened to withdraw from the INF Treaty if NATO continues in its efforts to field a Ballistic Missile Defense System in Europe. See Richard K. Betts, “Security and Solidarity: NATO’s Balancing Act After the Deployment of Intermediate-Range Nuclear Forces”, *The Brookings Review*, Summer 1985. See also Christopher Layne, “After the INF Treaty: A New Direction for America’s European Policy,” *CATO Institute Policy Analysis #103* (Washington, DC, CATO Institute, April 21, 1988).

<sup>43</sup> Sheen, 53.

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<sup>44</sup> Seong-Ryoul Cho, “The Realignment of USFK and the US-ROK Alliance in Transition”, in *The United States and the Korean Peninsula in the 21<sup>st</sup> Century*, ed by Tae-Hwan Kwak and Sueng-Ho Joo, (Burlington, VT: Ashgate Publishing Company, 2006).

<sup>45</sup> Sheen, 52.

<sup>46</sup> South Korea’s “Sunshine Policy” led that nation to invest economically in North Korea, and to visibly support North Korea at a time when the US was trying to pressure North Korea to cease further proliferation efforts—see Cho, 22. While economic aid continues, current South Korean government policies are perceived as more in-line with US efforts—see Sheen, 52.

<sup>47</sup> Although the distress call from the stricken South Korean vessel was received at 9:45pm on the night of the incident, reports to the South Korean Defense Minister and Chairman of Joint Chiefs of Staff were delayed unaccountably, and although North Korean foul play was suspected, neither the Defense Ministry nor Joint Staff formed a crisis management team or placed military forces on combat alert, though this was called for by doctrine. See “North Korea: The Risks of War in the Yellow Sea,” *Asia Report No 198* (Brussels, BE: International Crisis Group, 23 December 2010), [www.crisisgroup.org/en/publication-type/reports.aspx?year=2010](http://www.crisisgroup.org/en/publication-type/reports.aspx?year=2010), (accessed 12 November 2011).

<sup>48</sup> South Korea’s new “Proactive Deterrence” policy now directs the South Korean military to respond to future North Korean aggression with “prompt, focused, and disproportionate retaliatory (and perhaps preemptive) actions in order to raise the costs to North Korea of small scale attacks.” While potentially heartening to a South Korean public weary of continuous North Korean small-scale aggression, the possibility that South Korean preemption or disproportionate retaliation raises the potential for subsequent response and possible conflict escalation in line with the North’s *juche* ideology. See Gordon C. Chang, *Nuclear Showdown: North Korea Takes on the World* (New York, NY: Random House, 2006), 12-20.

<sup>49</sup> Yukio Satoh, “On Rethinking Extended Deterrence,” in *Shared Responsibilities for Nuclear Disarmament: A Global Debate*, Cambridge, MA: American Academy of Arts and Sciences, 2006.

<sup>50</sup> Ismay, 6-15.

<sup>51</sup> By late 1950, alliance members had committed to a comprehensive buildup of ground forces to repel a possible Soviet invasion which threatened the freedoms of the entire western European block. However, the non-US members proved unwilling to support the political and economic commitments necessary to field large armies, leading the US to deploy nuclear weapons onto European soil to offset Soviet numerical superiority. See Andreas Wenger, “Crisis and Opportunity: NATO’s Transformation and the Multilateralization of Détente, 1966-1968,” *Journal of Cold War Studies*, Vol 6, No 1 (Winter 2004), 22-74.

<sup>52</sup> Robert Krone’s overview of NATO nuclear policy-making suggests that initial NATO nuclear doctrine was dominated by the United States due to European ally focus on ostwar economic and political reconstruction. “With almost exclusive ownership of NATO’s nuclear weapons, delivery systems, and knowledge, the American government forced NATO’s nuclear strategy single-handedly.” See Robert M. Krone, “NATO Nuclear Policy-Making,” in *New Civil-Military Relations: The Agonies of Adjustment to Post-Vietnam Realities*, edited by John P. Lovell and Phillip S. Kronenberg, (New Brunswick, NJ: Transaction Books, 1974), 193-228.

<sup>53</sup> Derived from multiple sources, including Krone “NATO Nuclear Policy-Making”. See also Paul Buteaux, *The Politics of Nuclear Consultation in NATO 1965-1980*, (New York, NY: Cambridge University Press, 1983), and Avery Goldstein, *Deterrence and Security in the 21<sup>st</sup> Century: China, Britain, France and the Enduring Legacy of the Nuclear Revolution*, (Stanford, CA: Stanford University Press, 2000), pp139-216.

<sup>54</sup> Krone, “NATO Nuclear Policy-Making,” 203.

<sup>55</sup> These included 1) Establishment of nuclear burden-sharing agreements where NATO nations would provide delivery vehicles to be mated with US-controlled warheads upon release by the President of the United States; 2) an

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abortive effort to establish an alliance nuclear missile force possessed by the alliance military forces (SHAPE) instead of being provided by individual NATO member countries; 3) efforts to create a NATO multilateral force (MLF), where ships carrying alliance nuclear weapons would be manned by crews from all participating NATO nations; 4) NATO's transition from a policy of Mutual Assured Destruction (MAD) to a policy of Flexible Response, with substantially greater leeway into the quantity and timing of any possible NATO use of nuclear weapons; and 5) creation of the NATO Nuclear Planning Group. Succinctly, Schwartz holds that these efforts showed NATO's increasing strategic maturity, in transitioning from weapons-based solutions to increasingly refined ways to engage NATO partners into the planning and operational control processes to address their abandonment/entrapment concerns. See David N. Schwartz, *NATO's Nuclear Dilemmas*, (Washington, DC: Brookings Institution, 1983).

<sup>56</sup> Ibid, 12.

<sup>57</sup> This summary only poorly describes a detailed and considerably-complex institutional process. The details described are derived from both Robert Krone's "NATO Nuclear Policy-Making" and his "A Pacific Nuclear Information Group: Prospects and Guidelines," in *The Journal of East Asian Affairs*, Vol III, No 2 (Fall/Winter 1983), 422-445. Paul Buteaux's "The Politics of Nuclear Consultation in NATO 1965-1980" provides excellent book-length insight into the NPG background, functions, and problems.

<sup>58</sup> Ibid, 17. See also Buteaux, *The Politics of Nuclear Consultation in NATO 1965-1980*, (New York, NY: Cambridge University Press, 1983).

<sup>59</sup> Paul Buteaux provides a masterful assessment into the background, functions, and problems of Cold War nuclear consultation and the Nuclear Planning Group. Recommended short historical articles include Helga Hafftendorf's "Germany's Accession to NATO: 50 Years On," *NATO Review*, (Summer 2005) and Section NATO Parliamentary Assembly, *The Origins and Evolution of NATO's Current Nuclear Policies*, <http://www.nato-pa.int/default.asp?SHORTCUT=2083>, (accessed 22 September 2011). Biased but valuable short papers from various European arms control organizations include: Laura Spagnuolo, "NATO Nuclear Burden Sharing and NPT Obligations." *BASIC Getting to Zero Papers #13*. London, UK: British American Security Information Council, undated. <http://www.basicint.org>, (accessed 22 October 2011), and Martin Butcher and Nicola Butler, "NATO Nuclear Sharing: An Anachronistic Obstacle to Nuclear Disarmament and Regional Security" in *Beyond Arms Control: Challenges and Choices for Nuclear Disarmament* (New York, NY: Reaching Critical Will, nd).

<sup>60</sup> Tim Sullivan, *Deter and Assure: Charting a Course for America's Asian Alliances in a New Nuclear Age*, (Washington, DC: American Enterprise Institute Center for Defense Studies, November 2010), p.8. See also Steven Pifer et al *US Nuclear and Extended Deterrence: Considerations and Challenges* (New York, NY: Brookings Institution, May 2010), 32.

<sup>61</sup> Ralph A. Cossa, "US Nuclear Weapons to South Korea?" *PACNET*, No 39 (Honolulu, HI: Pacific Forum CSIS, July 25, 2011), 1, [www.pacforum.org](http://www.pacforum.org), (accessed 22 October 2011). See also Pifer, 31-33.

<sup>62</sup> Payne, 9.

<sup>63</sup> The US Atomic Energy Act of 1954 specifically prohibits dissemination of US nuclear information. However, section 123 (Cooperation with Other Nations) establishes procedures to transfer such information to allies who have obtained specific bilateral agreements with the US government. Failure to seek and obtain such an agreement negatively impacted NATO Canadian forces during the Cold War, who were thus unable to be trained upon or issued their assigned nuclear weapon system (surface to surface missile and air defense missile for North American air defense). After a bilateral agreement is established, US information control to allies is managed by the US Department of Defense Joint Staff, per instruction CJCSI 2800.01C. See NUREF-0980 Vol 1 No 6, *Nuclear Regulatory Legislation* (Washington, DC: US Nuclear Regulatory Commission, June 2002), <http://www.nrc.gov/NRC/NUREGS/SR0980/ml022200075-vol1.pdf>, (accessed 27 October 2011). See also US Department of Defense, *CJCSI 2800.01C* (Washington, DC: Office of the Chairman of the Joint Chiefs of Staff, 21 November 2008), and Hans M. Kristensen *US Nuclear Weapons in Europe: A Review of Post Cold-War Policy, Force Levels, and War Planning* (New York, NY: National Resources Defense Council, February 2005), 12-13.

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<sup>64</sup> Seong Whun Cheon, , “The Significance of Forming a ROK-US Extended Deterrence Policy Committee.” *Korea Institute for National Unification*, undated. <http://www.kinu.or.kr>, (accessed 17 October 2011). See also Dae-Woo Lee, “The 42<sup>nd</sup> ROK-US Security Consultative Meeting: A New Start of Reinforced Deterrence,” *Sejong Commentary No 197* (Seoul, ROK: The Sejong Institute, October 11, 2010). US Pacific Command has publicized recent EDPC activity which integrated 40 South Korean defense and foreign affairs officials into a 2-day extended deterrence scenario tabletop exercise at US Strategic Command. See US Pacific Command, “Strengthen Alliances and Partnerships” *US Pacific Command: Presence with a Purpose*. Honolulu, HI: US Pacific Command, November 2011), <http://www.pacom.mil>, (accessed 3 December 2011).

<sup>65</sup> Avery Goldstein, *Deterrence and Security in the 21<sup>st</sup> Century: China, Britain, France and the Enduring Legacy of the Nuclear Revolution*, (Stanford, CA: Stanford University Press, 2000), pp139-216.

<sup>66</sup> While academic discourse often suggested that Japanese hedging was sufficiently robust to produce an indigenous nuclear weapon in only 6 months, analysts now contend the true duration to be 2 years minimum, with additional time required for development of a reliable delivery vehicle and command and control system. Analyst Jeffrey Lewis has traced the origin of the misleading 6-month capability metric to a Chinese news agency, suggesting that China may have been intentionally overinflating the Japanese threat, to best serve Chinese interests. See Jeffrey Lewis, *How Long for Japan to Build a Deterrent?* (Washington, DC: Arms Control Wonk.com, 28 December 2006), <http://lewis/armscontrolwonk.com/archive/1339/japans-nuclear-status>, (accessed 3 December 2011).

<sup>67</sup> See Kristensen, 12-13.

<sup>68</sup> US Department of State, *Joint Statement of the US-Japan Security Consultative Committee*, (Washington, DC: US Department of State, June 21, 2011).

<sup>69</sup> Schoff, 60. He notes that the SSC was previously utilized by the Japanese government during the 1980s, 1990s, and early 2000s to facilitate high-level negotiations and bilateral consultation with US leaders. This overcomes a significant institutional challenge which has frustrated previous serious efforts to establish an NPG-like consultative mechanism for US allies in Asia. See Robert M. Krone, “A Pacific Nuclear Information Group: Prospects and Guidelines,” in *The Journal of East Asian Affairs*, Vol III, No 2 (Fall/Winter 1983), 422-445.

<sup>70</sup> Yuri Kageyama, “Japan Cabinet Being Reshuffled After Rape Gaffes.” *Associated Press*, January 8, 2012. <http://news.yahoo.com/japan-cabinet-being-reshuffled-rape-gaffes-051320923.html>, (accessed 8 January 2012).

<sup>71</sup> An unclassified report from experts of the Congressional Commission on the Strategic Posture of the United States hints at the tantalizing possibility that the US Navy already possesses proven capability to “enable an otherwise non-nuclear capable submarine to be made capable of TLAM-N (nuclear cruise missile) delivery using man-portable equipment and meet all nuclear surety requirements.” See Robert B. Barker, “F-35—Preserving Nuclear Air-Delivery Infrastructure,” in *In the Eyes of Experts: Analysis and Comments on America’s Strategic Posture*, ed by Taylor Bolz (Washington, DC: United States institute for Peace, 2009), 168.

<sup>72</sup> South Korea’s new “Proactive Deterrence” policy now directs the South Korean military to respond to future North Korean aggression with “prompt, focused, and disproportionate retaliatory (and perhaps preemptive) actions in order to raise the costs to North Korea of small scale attacks.” While potentially heartening to a South Korean public weary of continuous North Korean small-scale aggression, the possibility that South Korean preemption or disproportionate retaliation raises the potential for subsequent response and possible conflict escalation in line with the North’s *juche* ideology. See “North Korea: The Risks of War in the Yellow Sea.” *Asia Report No 198*. Brussels, BE: International Crisis Group, 23 December 2010. [www.crisisgroup.org/en/publication-type/reports.aspx?year=2010](http://www.crisisgroup.org/en/publication-type/reports.aspx?year=2010), (accessed 12 November 2011).

<sup>73</sup> The Japanese Ministry of Defense was elevated to ministerial status less than two years ago, and still has not established a formal institution akin to the US national security council to focus on strategic national security issues. Japanese executive leadership is also problematic, given five Prime Ministers in less than 5 years and the resignation of the recently-appointed Minister of Defense. Japanese Defense Minister Yasuo Ichikawa was fired by current

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Japanese Prime Minister Yoshihiko Noda in January 2012 after a series of gaffes including playing up his lack of knowledge about defense matters, and showing insensitivity concerning the alleged rape of a young Japanese girl by US servicemen in Okinawa. See Hiyoshi Hiyaya. "Japan PM to Sack Two Ministers in Reshuffle." *AFB News*, January 12, 2012. <http://news.yahoo.com/japan-pm-sack-two-ministers-reshuffle-005226585.html>, (accessed 12 January 2012).

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